## Glossary

## IT Automation with Python

## **Terms and definitions from Course 6**

## A

**API endpoint:** The part of the program that listens on the network for API calls

## D

**Data serialization:** The process of taking an in-memory data structure, like a Python object, and turning it into something that can be stored on disk or transmitted across a network

**Distributed systems:** Also referred to as distributed computing or distributed databases, utilize different nodes to interact and synchronize over a shared network

**Docstrings:** Documentation that lives alongside the code

## E

**Error budgets:** Represented as the maximum amount of time that a program is able to fail without violating an agreement

## F

**Flask:** A Python library that makes it easier to create web applications and REST web services

## J

**JSON:** A data-interchange format used in RESTful APIs to facilitate communication between clients and servers

## N

**NALSD (Non-Abstract Large System Design):** A discipline and process introduced by Google, primarily aimed at empowering site reliability engineers (SREs) to assess, design, and evaluate large-scale systems

**Naming conventions**: Functions, classes and methods with naming conventions to understand what to expect from them

## R

**REST (Representational State Transfer):** Every request carries all the parameters and data needed for the server to satisfy that request

**RESTful APIs:** Rely on the HTTP protocol, can be further secured using HTTPS, and API endpoints can authenticate users via authorization tokens, API keys, or other security mechanisms

**REST architecture:** An architectural style for designing networked applications and web services

**Richardson Maturity Model (RMM):** A framework that categorizes and describes different levels of implementation for RESTful APIs based on their adherence to the six constraints

## S

**Service-level agreements (SLAs):** An agreement between a vendor and its clients or users that can be legally binding

**Service-level objectives (SLOs):**  A specific and measurable target that defines the level of performance, reliability, or quality a service should consistently deliver

## W

**Web application:** An application that you interact with over HTTP